

# Aditya Ved

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Motivated and results-driven Mathematics and Computer Science student at UIUC, adept at leveraging analytical thinking, comprehensive programming skills, and experience with AI/ML and Full Stack Development to create innovative software solutions. Seeking to leverage proficiency with data structures, mathematical principles, and hands-on experience in software development to contribute effectively as a software engineer.

Quick learner, continuously striving to build technical expertise in a professional environment.

## EDUCATION

<b>University of Illinois Urbana-Champaign</b> <i>4.0 GPA, Dean's List, Bachelor of Science in Mathematics and Computer Science</i>	Urbana-Champaign, IL <i>Aug. 2023 – May 2027</i>
<b>Dougherty Valley High School</b> <i>4.6/4.0 GPA, 1530 SAT (800 Math, 730 R/W), National Merit Commendation</i>	San Ramon, CA <i>Aug. 2019 – May 2023</i>

## EXPERIENCE

<b>Software Engineer, Research Assistant</b> <i>Illinois Mathematics Lab</i>	Current
<ul style="list-style-type: none"><li>Research Assistant to Professor Igor Mineyev, researching innovative solutions to popularize and disprove Kaplansky's Zero Divisor and Unit Conjecture, popular topics in modern <b>Ring Theory</b> and <b>Topology</b>.</li><li>Used <b>ReactJS</b> with custom <b>ReactFlow</b> components to develop a web-based game "Color Taiko", <b>Apache Cordova</b> to package directories into a mobile compatible version</li><li>"ColorTaiko!" is a crowd sourcing method to finding valid counter examples to Kaplansky's conjecture</li></ul>	
<b>Autonomous Navigation Engineer</b> <i>Illinois Robotics In Space (IRIS)</i>	Sept 2023 - Dec 2023
<ul style="list-style-type: none"><li>Integrated ROS2, RTAB-Maps, Nav2, Gazebo, Python to build an autonomous navigation system for a lunar rover</li><li>Completed lunar rover to be submitted to the NASA Lunabotics competition at the Kennedy Space Center, FL</li></ul>	

## PERSONAL PROJECTS AND TECHNICAL SKILLS

<b>AI Equity Research Assistant</b>   <i>Python, LangChain, FAISS, OpenAI API, Streamlit</i>	Spring 2024
<ul style="list-style-type: none"><li>GPT powered <b>LLM Chat Bot</b> on custom data to make investment opportunity analysis more efficient</li><li><b>Web scrapes</b> relevant news sources and text inputs, allowing users to receive sourced answers in seconds</li><li><b>Text embedding</b> with OpenAI API and <b>Vector Database</b> managed with Facebook AI Similarity Search (FAISS)</li><li><b>Recursive text splitting</b> to limit token size and manage API costs</li><li>UI built with Streamlit</li><li><b>Website Link:</b> <a href="https://aditya-ved-ai-equity-research-tool.streamlit.app/">https://aditya-ved-ai-equity-research-tool.streamlit.app/</a></li></ul>	
<b>SortMe</b>   <i>JavaScript, JSX, React, HTML, CSS, React Routing</i>	Summer 2023
<ul style="list-style-type: none"><li>Developed a front-end <b>ReactJS</b> web application with a fully functioning <b>DOM-based UI</b>, complete with HTML/CSS Styling, Interactive UI Components, and Routing</li><li>SortMe visually compares the efficiency of common Data Sorting Algorithms with live side by side CSS animated visuals</li><li>Fully responsive visuals with explanations of the sorting process</li><li><b>Website Link:</b> <a href="https://aved2.github.io/SortMe">https://aved2.github.io/SortMe</a></li></ul>	

**Languages:** C++, Java, Python, JavaScript, HTML/CSS, SQL, Latex

**Frameworks/Libraries:** OpenAI API, LangChain, TensorFlow, Google Firebase, MongoDB, React, Streamlit

**Developer Tools:** Git, Github, Andriod Studio, VS Code, PyCharm, Eclipse

**Design Tools:** Adobe Suite, ProCreate, CSS Web-Design

**Mathematical Skills:** Graph Theory, Number Theory, Discrete Structures, Calculus, Linear Algebra

**Leadership:** Bell Leadership Award Recipient (DVHS), Wildcat Leadership Award Recipient (DVHS)

**Communication:** Excellent interpersonal communication skills enable me to collaborate with clients, stakeholders, and cross-functional teams to deliver high-quality results.